

PATENT

File 255.00040101

**SOMATOSTATINS AND METHODS**

This application claims the benefit of U.S. Provisional Application Serial No. 60/168,934, filed December 3, 1999, which is incorporated herein by reference in its entirety.

**Statement of Government Rights**

This invention was made with government support under grants from the National Science Foundation, Grant No. OSR-9452892 and Grant No. IBN-9723058.

**Background of the Invention**

Somatostatins are ubiquitous polypeptides known to affect basic biological processes such as growth, development, metabolism, and cell differentiation in vertebrates. Somatostatin was first isolated as a 14-amino acid peptide from ovine hypothalamus and found to inhibit the release of growth hormone from the pituitary gland (Brazeau et al., Science, 179, 77-79 (1973)). Since then somatostatins have been isolated from representatives of nearly every major group of vertebrates examined to date, from jawless fish to mammals (Conlon et al., Regul. Peptides, 69, 95-103 (1997)). Somatostatins have been found broadly in the central (e.g., cerebral cortex, cerebellum, pineal, olfactory lobe, hypothalamus, spinal cord) and peripheral nervous systems, gastrointestinal tract (e.g., salivary glands, stomach, intestine), urogenital tract (e.g., bladder, prostate, collecting ducts of the kidney), pancreatic islets, adrenal glands, thyroid tissue, and placenta as well as in cerebral spinal fluid, blood, and saliva (Reichlin, "Somatostatin," Brain peptide, Krieger et al., eds., John Wiley and Sons, New York, pp. 712-752 (1982); Gerich, "Somatostatin and analogues," Diabetes mellitus: Theory and practice, Ellenberg et al., eds., Medical Examinations, New York (1983); Wass, "Somatostatin," Endocrinology,